P R O G R A M M A B L E P R O G R A M M I N G P R O B A B I L I T Y

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Abstract. There is p r e s e n t e d a :
[0.programmable : ordered set theoretically - using the Cartesian Products of subsets :
of the natural numbers set assigned to the linguistic TEXT of a subtitles system written :
0.[0.in one Multi...Multi-[0.(Meta)Statement , 1.G r a p h] ;
0.[1.similar to a [0.Simple Mathematical Machine , 1.Discrete Automaton] ;
[1. very brief Probabilistic Multi...Multi-I n f o r m a t i o n :
1.[0.N A R R O W E D : limited to only o n e page of the C O N T E N T (S) ;
1.[1.W I D E N E D : (but) limited only to a small Sub[Structure , Graph];0.-1.ALGORITHM;
0.-1.as a Non-Deterministic STRUCTURE , similar to the [0.Algebraic Struct.,1.Geometric Objects] ;

Keywords. Multi...Multi-[Information[Mathematics[[Deterministic,Probabilistic],[Continuous , Discrete],[Set,Structure],[DEFINITION,THEOREM]],[[Index,Sequence] , [Function,Graph]]], Heuristics[Hypothesis , System] ,Computer] ;

1. (META)STATEMENT: ON THE [SET THEORETIC,MULTI...MULTI-GRAPH] O R D E R OF P R O B A B I L I T Y:
[0. I F :
 0. there are given the following K E Y :
 [0. a u t h o r' s PAPERS [1] - [5] ;
 [1. W O R D S' S E Q U E N C E S (see[4]),
1.[1. T H E N :
 [0. the f o l l o w i n g (s e e [4]) :
 [1. N A R R O W E D :
 0.MULTI...MULTI - I N F O R M A T I O N :
[1. M A T H E M A T I C S :
 1. S E T S :
 1. REPRESENTATIONS (WITH/OF THE) :
 [1. P O W E R ;
 [2. M E A S U R E :
 [1.D E T E R M I N I S T I C ;
 [2.P R O B A B I L I S T I C ;
 0.P R O B A B I L I T Y :
 [1.T H E O R Y :
 [1.M O D E L :
 [0.I N T R O D U C T I O N ;
 [1.OF ANY EXPERIMENT SEQUENCE :
 [1.O N E-E L E M E N T A L :
 [1.INCLUDING S T A T E M E N T S :
 0.D E F I N E D ;
 1.T R U E ;
 [2.(USING) ANY OUTCOMES SEQUENCE ;
 [3.EVENTS IN A SEQUENCE ;
 [n. n - E L E M E N T A L SEQUENCE ;
 [2.CHARACTERISTICS : F U N C T I O N S :
 1.R A N D O M V A R I A B L E :
 [1.(SETS) OF S I Z E :
 1.MULTIVARIATE SEQUENCE :
 [1.D I S C R E T E
 [1.UNI,2.BI,...,n. n]-VARIATE
 [2.C O N T I N U O U S :
 [1.UNI,2.BI,...,n. n]-VARIATE
 [2.F U N C T I O N S :
 0.T E C H N I Q U E S ;
1.1.1.2.2.0.[1.2.1.2.1.SAMPLING DISTRIBUTIONS STATISTICS
1.1.1.2.2.0.[2.P R A C T I C E ;
 [3.AND S T A T I S T I C S :
 [0.S A M P L I N G D I S T R I B U T I O N S;
 [1. ANALYSIS (OF) REGRESSION, CORRELATION
 VARIANCE , NONPARAMETRICAL ;
[2. H E U R I S T I C S ;
(we return to the MULTI ...MULTI-NUMBER 1.1.0.)
1.1.[0.[2. W I D E N E D :
[0. MULTI...MULTI - I N F O R M A T I O N :
 [1. M A T H E M A T I C S :
 [1. SETS ${}_jX_{j_1}(j_2)$, j=1,2;j_1=1,...,n_1;j_2=1,...,n_2
 [1. REPRESENTATIONS (WITH/OF THE) :
 [0.ELEMENTS ${}_jx_{j_1}(j_2) \in {}_jX_{j_1}(j_2)$;
 1.P O W E R :

0.[1.[1.[1.[1.[1.D I S C R E T E ${}_1X$:
 [1.FINITE, 2.INFINITE [1.COUNTABLE, ^{1}2.UNCOUNTABLE]]
 [2.C O N T I N U O U S ${}_2X$;
 [2.M E A S U R E :
 [1.D E T E R M I N I S T I C ;
 [2.P R O B A B I L I S T I C :
 0.P R O B A B I L I T Y :
 1.T H E O R Y :
[1. M O D E L :
 [0. I N T R O D U C T I O N ;
 [1. OF ANY E X P E R I M E N T S E Q U E NCE:
 [1. ONE-ELEMENTAL: OF ANY EXP. IN ONE-ELEMENTAL SEQUENCE :
 [1. (INCLUDING) S T A T E M E N T S :
 [0.D E F I N E D : D E F I N I T I O N S :
 [0.OUTCOME(S) x (OF ANY EXPERIMENT) :
 [0.S E T X :
 0.n- ELEMENTAL $[x_j]=\bar{x}$ SEQUENCE ,
 j=1,...,n ; $x_j \in X$;
 [1.E Q U I P R O B A B L E ;
 1.S A M P L E S P A C E :
 $\bar{\bar{x}}_0 = [\bar{x}_{j_1}] = \bar{X} \longleftarrow X \ni x_j$,j_0=1,...,n_0;j_1=1,...,n_1 :
 [1.D I S C R E T E ;
 [2.C O N T I N U O U S ;
 1.-2.PARTITIONING INTO A PARTS: STATES SEQUENCE :
 1.T W O - E L E M E N T A L;
 n. n - E L E M E N T A L;
 2.S U B S E T - E V E N T :
 $\bar{\bar{x}}_{0j_1} = [\bar{x}_{0j_0}(j_1)] = [[x_{j_0}]_{j_1}] \in \bar{\bar{X}}:[\bar{x}_{0j_1}] \longleftarrow [X_{j_1}] = \bar{X}$,
 ${}_1X_{j_1} \subset X$;
 0.SET $[X_{j_1}] = \bar{X} \longrightarrow \bar{\bar{X}}_0 \ni \bar{\bar{x}}_0$;
 [3.A S S I G N M E N T-M E A S U R E
 (ASSIGNMENT OF P R O B A B I L I T Y) :
 $x_0 = x_0(x_{j_0}) \longleftarrow x_{0j_0} = x_{0j_0}(x_{j_0}) = \bar{x}_0(\bar{x})$
1.1.[1.[1.[1.T R U E (U N D E F I N E D) :
 [0.UNPROVED : POSTULATES , A X I O M S ;
 [1. PROVED : T H E O R E M S ;
 0.-1.ADDITIONAL : A L G E B R A O F :
 [1.S E T S: S E T T H E O R Y ;
 [2.EVENTS : P R O B A B I L I T Y ;
 [3.STATEMENTS: LOGIC - CONNECTIVES ;
 [4.COMBINATORICS: GENERAL , NONLINEAR ALGEBRA ;
1.1.[1.[2. (USING) ANY OUTCOMES n-ELEM. SEQUENCE $[x_j] = \bar{x}$ WITH :
 [1.NUMBERS OF T I M E S THE :
 [1.E X P E R I M E N T WAS P E R F O R M E D ;
 [2.DISTINCT OUTCOMES O C C U R R E D ;
 [2.(STATEMENTS ON) RELATIVE FREQUENCY FOR AN OUTCOME :
 [0.D E F I N I T I O N ;
 [1.L A W OF L A R G E N U M B E R S ;
1.1.[1.[3. EVENTS $\bar{\bar{x}}_0$ IN A SEQUENCE $[\bar{x}_{0j_1}] = [x_{0j_0}(j_1)]$:

1.1.1.3.0.PROBABILITY x_0 OF EVENT $\bar{x}_{0j_1}$ CALLED :
1.UNCONDITIONAL $x_0 = x_0(\bar{x}_{0j_1} = x_{j_1})$:
0.D E F I N I T I O N ;
1.S T A T E M E N T S :
0.UNPROVED PROPERTIES [POSTULATES, AXIOMS] ;
1.PROVED : T H E O R E M S ;
2.CONDITIONAL $x_0 = x_0(\bar{x}_{02}|\bar{x}_{01})$:
0.D E F I N I T I O N ;
1.T H E O R E M S E Q U E N C E ;
1.1.1.3.1.W H I C H A R E :
0.C A L L E D :
1.INDEPENDENT $_{11}\bar{x}_{0j_1}$:
1.TWO ELEMENTS :
0.D E F I N I T I O N ;
1.THEOREM : ON A PRODUCT R U L E;
n. n_1 ELEMENTS :
0.D E F I N I T I O N ;
1.THEOREM : ON A PRODUCT R U L E;
2.DEPENDENT $_{21}\bar{x}_{0j_1}$;
1.1.1.3.1.1.P R E S E N T E D IN THE :
0.EXPANSION RULE FOR THE STATES SEQUENCE :
1.T W O - E L E M E N T A L ;
n. n - E L E M E N T A L ;
1.B A Y E S' THEOREM (FOR A PARTIT. SEQUENCE):
1.T W O - E L E M E N T A L ;
n. n - E L E M E N T A L ;
1.1.n. (OF ANY EXPERIMENT) n - E L E M E N T A L :
n-ELEMENTAL SEQ-CE OF EXP-TS : STOCHASTIC PROCESS :
1. ASSIGNMENT-MEASURE : ASSIGNMENT OF PROBABILIT.:
1.T R E E ;
2.U R N - L I K E : R E P L A C E M E N T :
1.W I T H (R E P L A C E M E N T) ;
2.W I T H O U T (R E P L A C E M E N T) ;
(we return to the MULTI...MULTI-NUMBER 1.1.0.2.0.1.1.1.2.2.0.1. THEORY) ;
2. C H A R A C T E R I S T I C S :
F U N C T I O N S :
1. RANDOM VARIABLE $\bar{\bar{x}}_1 = \bar{x}(\bar{x}_{0j_1}) = x_{1j_1}(\bar{x}_{0j_1})$:
1. (SETS) OF S I Z E :
1. DISCRETE MULTIVARIATE S E Q U E N C E :
$_1\bar{\bar{x}}_{1j_2}$; $j_2 = 1,\dots,n$:
1.UNIVARIATE $_1\bar{\bar{x}}_1 = {}_1\bar{x}_1^{\,2}(\bar{x}_0, x_0(\bar{x}_{0j_1}))$:
0.D E F I N I T I O N ;
1.F U N C T I O N S : D I S T R I B U T I O N S:
$_1x_{1j}$; j = 1 , 2 :
1.FUNDAMENTAL $_1x_{11j}$; j = 1 , 3 :
1.F I R S T $_1x_{111j}$; j = 1 , 2 :
1.PROBABILITY $_1x_{1111}$:
PROBABILITY FUNCTION (OR DISTRIBUTION) :
$_1x_{1111} = {}_1x_{1111}({}_1\bar{\bar{x}}_1, x_0) = x_0({}_1\bar{\bar{x}}_1 = {}_1x_{1j_1})$ OF $_1\bar{\bar{x}}_1$:
0.D E F I N I T I O N ;
1.T H E O R E M ;
0.-1.GRAPHICAL REPRESENTATIONS :
1.H I S T O G R A M ;
2.B A R C H A R T ;
2. DISTRIBUTION $_1x_{1112}$:
DISTRIBUTION FUNCTION (OR CUMULATIVE F-N):
$_1x_{1112} = {}_1x_{1112}({}_1\bar{\bar{x}}_1, x_0) = x_0({}_1\bar{\bar{x}}_1 \le {}_1x_{1j_1})$ OF $_1\bar{\bar{x}}_1$:
0.D E F I N I T I O N ;
1.-2.T H E O R E M ;
2.SECOND : MOMENT(S) $_1x_{113j}$; j = 1 , 2 :
MOMENTS $_1x_{113j}$ OF THE DISTRIBUTIONS $_1x_{1111}$:
OF THE RANDOM VARIABLE $_1\bar{\bar{x}}_1$:
1.SEQUENCE $_1x_{1131j}$; j = 1 , 2 :
1.FIRST : THE jTH $_1x_{11311}$ ABOUT THE ORIGIN OF $_1\bar{\bar{x}}_1$:
0.D E F I N I T I O N :
0. j = :
0.0. ;
2.1.1.1.1.1.1.2.1.1.0.0.1. EXPECTED VALUE $_1x_{113111}$ OF $_1\bar{\bar{x}}_1$:
0.D E F I N I T I O N ;
1.T H E O R E M S ;

2.1.1.1.1.1.1.2.1.1.0.0.1.0.-1.M E A N $_1x_{113111}$:
OF THE DISTRIBUTION OF $_1\bar{\bar{x}}_1$:
0.DEFINITION ;
0.m. ;
2.SECOND: THE jTH $_1x_{11312}$ ABOUT THE MEAN OF $_1\bar{\bar{x}}_1$:
0.D E F I N I T I O N ;
0. j = :
0.0. ;
0.1. ;
0.2.VARIANCE $_1x_{113122}$ OF THE:
DISTRIB. $_1x_{1111}$ OF THE:
RANDOM VARIABLE $_1\bar{\bar{x}}_1$:
0.D E F I N I T I O N ;
1.STANDARD DEVIATION $_1x_{1131221}$:
0.D E F I N I T I O N ;
0.m. ;
1.-2.T H E O R E M S ;
2.1.1.1.1.1.1.2.1.GENERATING: MOMENT GENERATING FUNCTION :
$_1x_{1132}$ OF THE RANDOM VARIABLE $_1\bar{\bar{x}}_1$:
$_1x_{1132}(t) = {}_1x_{113111}(e^{t\,_1\bar{\bar{x}}_1})$:
0.D E F I N I T I O N ;
1.T H E O R E M S ;
2.1.1.1.1.1.2.S P E C I A L $_1x_{12j}$;j=1...5:
SPECIAL PROBABILITY DISTRIBUTIONS $_1x_{12j}$:
1.UNIFORM: THE UNIFORM DISTRIB. $_1x_{121}$:
0.D E F I N I T I O N ;
2.BERNOULLI: THE BERN. DISTRIB. $_1x_{122}$:
0.D E F I N I T I O N ;
3.BINOMIAL : THE BIN. DISTRIB. $_1x_{122j}$:
1.GENERAL $_1x_{1221}$:
0.D E F I N I T I O N ;
1.T H E O R E M S ;
2.N E G A T I V E $_1x_{1222}$:
0.D E F I N I T I O N ;
1.T H E O R E M S ;
2.G E O M E T R I C $_1x_{12221}$:
0.D E F I N I T I O N;
4.HYP E R G E O M E T R I C $_1x_{1223}$:
0.D E F I N I T I O N ;
1.T H E O R E M ;
5.POISSON : THE POISSON DISTR. $_1x_{1224}$:
0.D E F I N I T I O N ;
1.T H E O R E M S ;
2.1.1.1.2.BIVARIATE $[{}_1\bar{\bar{x}}_1, {}_1\bar{\bar{x}}_2] = {}_1\bar{x}_1^{\,2}(\bar{x}_0, x_0(\bar{x}_{0j_1}))$:
0.D E F I N I T I O N ;
1.FUNCTIONS : DISTRIBUTIONS $_1x_{1j}$, j = 1 , 2 :
1.FUNDAMENTAL $_1x_{11j}$, j = 1,2,3 :
1.F I R S T $_1x_{111j}$, j = 1 , 2 :
1.J O I N T $_1x_{1111j}$, j = 1 , 2 :
1.P R O B A B I L I T Y :
JOINT PROB. FUNCTION (OR DISTRIB.) $_1x_{11111}$:
0.D E F I N I T I O N;
1.T H E O R E M ;
2.D I S T R I B U T I O N $_1x_{11112}$:
JOINT DISTRIB. FUNCTION (OR CUMULATIVE DISTR.)
0.D E F I N I T I O N;
2.MARGINAL DISTRIBUTIONS $_1x_{1112j}$,j=1,2 OF :
1. $_1\bar{\bar{x}}_1$ DENOTED BY $_1x_{11121}$
0.D E F I N I T I O N;
2. $_1\bar{\bar{x}}_2$ DENOTED BY $_1x_{11122}$:
0.D E F I N I T I O N;
2.1.1.1.2.1.1.2.SECOND : CONDITIONAL $_1x_{112j}$,j=1,2 :
1.OF $_1\bar{\bar{x}}_1$ GIVEN $_1\bar{\bar{x}}_2$ DENOTED BY $_1x_{1121}$:
0.D E F I N I T I O N ;
2.OF $_1\bar{\bar{x}}_2$ GIVEN $_1\bar{\bar{x}}_1$ DENOTED BY $_1x_{1122}$:

2.1.1.1.2.1.1.2.2.0.D E F I N I T I O N ;
2.1.1.1.2.2.WHICH ARE ${}^{2}_{j1}\bar{x}_{1}$, j = 1 ,2:
0.INDEPENDENT ${}^{2}_{11}\bar{x}_{1}$:
0.D E F I N I T I O N ;
1.DEPENDENT ${}^{2}_{21}\bar{x}_{1}$:
0.D E F I N I T I O N ;
2.1.1.1.2.1.1.3. THIRD: MOMENT(S) ${}_1x_{113j}$, j=1,2,3
(OF THE DISTRIBUTIONS ${}_1x_{11111}$ OF ${}^{2}_{1}\bar{x}_{1}$) :
1.PRODUCTS ${}_1x_{1131j}$, j = 1 , 2:
1.T H E :
1.j_1TH , j_1 = 0,1, ... , n_1 ,
2.j_2TH , j_2 = 0,1, ... , n_2 ,
1.-2.A B O U T T H E :
1.FIRST: ORIGIN ${}_1x_{11311j_1j_2}$:
0.DEFINITION ;
0.0.
0.1.RESPECTIVE MEAN ${}_1x_{1131101}$ $({}^{2}_{1}\bar{x}_{1})$,
:
0.n_2. ,
1.0.RESPECTIVE MEAN ${}_1x_{1131110}$ $({}^{2}_{1}\bar{x}_{1})$,
1.1.EXPECTED VALUE ${}_1x_{1131111}$ $({}^{2}_{1}\bar{x}_{1})$:
0.DEFINITION ;
1.T H E O R E M S ;
:
1.n_2. ;
:
n_1.0. ;
:
n_1.n_2. ;
2.1.1.1.2.1.1.[2.-3.1.1.1.-2.1.0.1.1.]CONDITIONAL :
EXPECTATIONS ${}_1x_{112j-3j}$:
0.DEFINITION ;
2.1.1.1.2.1.1.3.1.1.1.-2.2.SECOND: RESPECTIVE MEANS :
${}_1x_{1131201,10}$
0.D E F I N I T I O N:
0.0. ;
:
0.n_2 ,
1.0. ,
1.1.COVARIANCE ${}_1x_{1131211}$:
OF ${}_1\bar{x}_{1}$ AND ${}_1\bar{x}_{2}$:
0.DEFINITION;
1.-2.T H E O R E M S;
2.1.1.1.2.1.1.3.2(JOINT)-GENERATING FUNCTIONS ${}_1x_{1132}$:
0.D E F I N I T I O N ;
3.OF LINEAR COMBINATIONS ${}^{2}_{2}a\bar{x}_{1}$:
OF RANDOM VARIABLES ${}^{2}_{1}\bar{x}_{1}$:
0.D E F I N I T I O N ;
1.T H E O R E M S ;
2.1.1.1.2.1.2.S P E C I A L ${}_1x_{12j}$, j=1,2 :
1.B I N O M I A L ${}_1x_{121}$:
0.D E F I N I T I O N ;
2.HYPERGEOMETRIC ${}_1x_{122}$:
0.D E F I N I T I O N ;
2.1.1.1.n. n-VARIATE$[{}_1\bar{x}_{1},\ldots,{}_1\bar{x}_{n}] = {}_1x(\bar{x}_0, x_0(x_{0j_1}))$
0.D E F I N I T I O N ;
1.FUNCTIONS : DISTRIBUTIONS ${}_1x_{1j}$, j = 1 , 2 :
1.1.FUNDAMENTAL ${}_1x_{11j}$, j = 1,2,3 :
1.FIRST : [1.JOINT,2.MARGINAL]${}_1x_{111j}$, j = 1,2 :
1.J O I N T ${}_1x_{1111j}$, j = 1 , 2 :
1.P R O B A B I L I T Y :
JOINT PROBAB.FUNCTION (OR DISTR.) ${}_1x_{11111}$:
0.D E F I N I T I O N ;

2.1.1.1.n.1.1.1.1.1.T H E O R E M ;
2.DISTRIBUTION ${}_1x_{11112}$:
JOINT DISTR.FUNCTION (OR CUMULATIVE DISTR.)
0.D E F I N I T I O N;
2.MARGINAL DISTR-NS ${}_1x_{1112j}$, j = 1 , 2
1.0 F ${}_1x_{11121j}$, j = 1,...,n:
1. ${}_1\bar{x}_{1}$ DENOTED BY ${}_1x_{111211}$:
0.D E F I N I T I O N;
:
n. ${}_1\bar{x}_{n}$ DENOTED BY ${}_1x_{11121n}$:
0.D E F I N I T I O N;
2.FUNCTIONS ${}_1x_{11122j}$:
0.D E F I N I T I O N S ;
1.-2.JOINT MARGINAL ${}_1x_{1111-2j}$, j = 1 , 2 :
1.DISTRIBUTIONS ${}_1x_{1111-21j}$:
0.D E F I N I T I O N S ;
2.F U N C T I O N S ${}_1x_{1111-22j}$:
0.D E F I N I T I O N S ;
2. SECOND : CONDITIONAL ${}_1x_{112j}$:
0.D E F I N I T I O N S ;
2.1.1.1.n.1.1.[1.-2.] JOINT CONDITIONAL ${}_1x_{(111-112)j}$:
0.D E F I N I T I O N S ;
2.1.1.1.n.2.W H I C H A R E ${}^{2}_{j1}\bar{x}_{1}$, j = 1 , 2:
1.INDEPENDENT ${}^{2}_{11}\bar{x}_{1}$:
1.0.D E F I N I T I O N ;
2.DEPENDENT ${}^{2}_{21}\bar{x}_{1}$:
0.D E F I N I T I O N ;
2.1.1.1.n.1.1.3.THIRD : MOMENT(S) ${}_1x_{113j}$, j=1,2,3
(OF THE DISTR. ${}_1x_{11111}$ OF THE VAR-S ${}^{2}_{1}\bar{x}_{1}$) :
1.P R O D U C T S ${}_1x_{1131j}$, j = 1,2 :
1.T H E :
1.j_1TH , j_1 = 0,1, ... ,n_1 ,
:
n.j_nTH , j_n = 0,1, ... ,n_n ,
2.1.1.1.n.1.1.3.1.1.1.-n.A B O U T T H E:
1.FIRST : ORIGIN ${}_1x_{11311j_1\ldots j_n}$:
0.D E F I N I T I O N :
0.0....0. ;
:
1.0....0.RESPECTIVE MEAN ${}_1x_{1131110\ldots0}$$({}^{2}_{1}\bar{x}_{1})$:
0.D E F I N I T I O N ;
0.1.0....0.RESPECTIVE MEAN ${}_1x_{11311010\ldots0}$$({}^{2}_{1}\bar{x}_{1})$:
0.D E F I N I T I O N ;
:
0.0....1.RESPECTIVE MEAN ${}_1x_{1131100\ldots1}$$({}^{2}_{1}\bar{x}_{1})$:
0.D E F I N I T I O N ;
:
1.1.0....0.0. ;
0.0....1.1. ;
:
1....1.0. ;
0.1....1. ;
:
1.1....1.EXPECTED VALUE ${}_1x_{11311,1\ldots1}$$({}^{2}_{1}\bar{x}_{1})$:
0.D E F I N I T I O N ;
1.T H E O R E M S ;
:
n_1. ... n_n. ;
2.1.1.1.n.1.1.[2.-3.1.1.1.-n.1.0.1....1.] CONDITIONAL:
EXPECTATIONS DENOTED BY ${}_1x_{112j-3j}$:
0. D E F I N I T I O N S ;
2.1.1.1.n.1.1.3.1.1.1.-n.2. SECOND : RESPECTIVE MEANS
${}_1x_{11312j}$, j = 1,...,n :
0.D E F I N I T I O N :

2.1.1.1.n.1.1.3.1.1.1.-n.2.0. 0....0. ;
:
1....1.COVARIANCE $f^{x}_{11312,1...1}$:
0.DEFINITION ;
2.1.1.1.n.1.1.3.2.(JOINT)-GENERATING FUNCTIONS $_{1}x_{1132}$:
0.D E F I N I T I O N S ;
3.OF LINEAR COMBINATIONS $_{2}\bar{a}\ _{1}\bar{x}_{1}$:
OF RANDOM VARIABLES $_{1}\bar{x}_{1}$:
0.D E F I N I T I O N ;
1.T H E O R E M S ;
2.1.1.1.n.1.2.S P E C I A L $_{1}x_{12j}$, j =1,2:
1.MULTINOMIAL $_{1}x_{121}$:
0.D E F I N I T I O N ;
2.HYPERGEOMETRIC $_{1}x_{122}$:
0.D E F I N I T I O N ;
2.1.1.2. CONTINUOUS MULTIVARIATE SEQUENCE $_{2}\bar{x}_{1j_2}$;j_2=1,...,n :
1.UNIVARIATE $_{2}\bar{x}_{1} = {}_{2}\bar{x}_{1}(\bar{x}_{0},x_{0}(\bar{x}_{0j_1}))$:
0.D E F I N I T I O N ;
1.FUNCTIONS : DENSITIES $_{2}x_{1j}$, j = 1,2 :
1.FUNDAMENTAL $_{2}x_{11j}$, j = 1,3 :
1.F I R S T $_{2}x_{111j}$, j = 1,2 :
1.PROBABILITY $_{2}x_{1111}$:
PROBABILITY DENSITY (FUNCTION) :
$_{2}x_{1111} = {}_{2}x_{1111}(_{2}\bar{x}_{1},x_{0}) = x_{0}(_{2}\bar{x}_{1} = {}_{2}x_{1j_1})$ OF $_{2}\bar{x}_{1}$:
0.D E F I N I T I O N ;
1.T H E O R E M S ;
2.DISTRIBUTION $_{2}x_{1112}$:
DISTRIBUTION FUNCTION (OR CUMULATIVE D.) :
$_{2}x_{1112} = {}_{2}x_{1112}(_{2}\bar{x}_{1},x_{0}) = x_{0}(_{2}\bar{x}_{1} \leq {}_{2}x_{1j_1})$ OF $_{2}\bar{x}_{1}$:
0.D E F I N I T I O N ;
1.-2.T H E O R E M ;
2.1.1.2.1.1.1.2. SECOND : MOMENT(S) $_{2}x_{113j}$; j = 1 , 2:
MOMENTS $_{2}x_{113j}$ OF THE DISTR-NS $_{2}x_{1111}$
OF THE RANDOM VARIABLE $_{2}\bar{x}_{1}$:
1.SEQUENCE $_{2}x_{1131j}$, j = 1 , 2:
1. FIRST : THE jTH $_{2}x_{11311}$ ABOUT THE
ORIGIN OF $_{2}\bar{x}_{1}$:
0.DEFINITION :
0. j = :
0.0. ;
0.1.EXPECTED VALUE $_{2}x_{113111}$ OF $_{2}\bar{x}_{1}$:
0.D E F I N I T I O N ;
1.T H E O R E M S ;
0.-1.MEAN $_{2}x_{113111}$:
OF THE DISTRIBUTION OF $_{2}\bar{x}_{1}$:
0.D E F I N I T I O N;
0.m. ;
2. SECOND: THE jTH $_{2}x_{11312}$ ABOUT THE MEAN :
OF THE $_{2}\bar{x}_{1}$:
0.D E F I N I T I O N :
0. j = :
0.0. :
0.1. ;
0.2.VARIANCE $_{2}x_{113122}$ OF THE
DISTR. $_{2}x_{1111}$ OF THE R. VARIABLE $_{2}\bar{x}_{1}$:
2.1.1.2.1.1.1.2.1.2.0.0.2.0.D E F I N I T I O N ;
1.STANDARD DEVIATION $_{2}x_{1131221}$:
0.D E F I N I T I O N ;
0.m. ;
1.-2.T H E O R E M S ;
2.1.1.2.1.1.1.2.2.GENERATING: MOMENT GEN. F-N $_{2}x_{1132}$
OF THE RANDOM VARIABLE $_{2}\bar{x}_{1}$:
$_{2}x_{1132}(t) = {}_{2}x_{113111}(e^{t\,_{2}\bar{x}_{1}})$
0.D E F I N I T I O N ;
1.T H E O R E M S ;

2.1.1.2.1.1.2.S P E C I A L $_{2}x_{12j}$,j=1-10 (see [4]) ;
2.1.1.2.2. BIVARIATE $[_{2}\bar{x}_{1},{}_{2}\bar{x}_{2}] = {}_{2}\bar{x}_{1}(\bar{x}_{0},x_{0}(\bar{x}_{0j_1}))$ (see [4]) ;
2.1.1.2.n. n-VARIATE $[_{2}\bar{x}_{1}, \cdots ,{}_{2}\bar{x}_{n}] = {}_{2}\bar{x}_{1}(\bar{x}_{0},\bar{x}_{0}(x_{0j_1}))$:
0.D E F I N I T I O N ;
1.FUNCTIONS : DENSITIES $_{2}x_{1j}$, j = 1 , 2 ;
1.FUNDAMENTAL $_{2}x_{11j}$, j = 1,2,3 ;
1.FIRST: [1.JOINT,2.MARGINAL] $_{2}x_{111j}$, j= 1,2 ;
1.J O I N T $_{2}x_{1111j}$, j = 1 , 2 :
1.PROBABILITY DENSITY FUNCTION $_{2}x_{11111}$:
0.D E F I N I T I O N ;
1.T H E O R E M ;
2.DISTRIBUTION FUNCTION $_{2}x_{11112}$
(OR CUMULATIVE DISTRIB.) :
0.D E F I N I T I O N ;
2.MARGINAL DISTRIBUTIONS $_{2}x_{1112j}$, j=1,2 :
1.OF $_{2}x_{11121j}$, j = 1,...,n :
1. $_{2}\bar{x}_{1}$ DENOTED BY $_{2}x_{111211}$:
0.D E F I N I T I O N;
:
n. $_{2}\bar{x}_{n}$ DENOTED BY $_{2}x_{11121n}$:
0.D E F I N I T I O N;
2.F U N C T I O N S $_{2}x_{11122j}$:
0.D E F I N I T I O N S;
1.-2.JOINT MARGINAL $_{2}x_{1111-2j}$, j=1,2 :
1. DENSITY FUNCTIONS $_{2}x_{1111-21j}$:
0.D E F I N I T I O N S;
2. CUMULATIVE DIST-NS $_{2}x_{1111-22j}$:
0.D E F I N I T I O N S;
2.1.1.2.n.1.1.2.SECOND :CONDITIONAL $_{2}x_{112j}$:
0.D E F I N I T I O N ;
2.1.1.2.n.1.1.[1.-2.]JOINT CONDITIONAL $_{2}x_{(111-112)j}$:
0.D E F I N I T I O N S ;
2.1.1.2.n.2.W H I C H A R E $_{j2}\bar{x}_{1}$, j = 1,2 :
1.INDEPENDENT $_{12}\bar{x}_{1}$:
0.D E F I N I T I O N ;
2. DEPENDENT $_{22}\bar{x}_{1}$:
0.D E F I N I T I O N ;
2.1.1.2.n.1.1.3.THIRD : MOMENTS $_{2}x_{113j}$, j=1,2,3 (see [4]) :
1.PRODUCTS $_{2}x_{1131j}$, j = 1 , 2 ;
2. (JOINT) GENERATING FUNCTIONS $_{2}x_{1132j}$:
3.LINEAR COMBINATIONS $_{2}x_{1133} = {}_{2}\bar{a}\ _{2}\bar{x}_{1}$;
2.1.1.2.n.1.2.S P E C I A L $_{2}x_{12j}$ (see [4]) ;
2.1.2.FUNCTIONS : FUNCTIONS OF RANDOM V A R I A B L E S ;
(we return to the MULTI...MULTI-NUMBER 1.1.0.2.0.1.1.1.2.2.0.)
1.1.0.2.0.1.1.1.2.2.0.2.P R A C T I C E ;
3.AND S T A T I S T I C S ;
2.MODELS FOR THE HEURISTIC TASKS' SETS ;
2.STRUCTURES FOR MODELING OF HEURISTICS ;
2.HEURISTICS :NON-MATHEMATICAL INFORMATION ;
1.C O M P U T E R S ;
0.-1.IN ONE SYSTEM CALLED I N F O R M A T I C S;
1.1.1.COMPLETE,COMPOSITE [0.[0.SYSTEM← 1.STRUCTURE]←1.GRAPH]:
0.-1.OF THE CONSIDERED [0.[0.TITLE←1.SUBTITLES]←1.TEXT].

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